

ALUMINUM ELECTROLYTIC CAPACITORS

UUE

Chip Type, Vibration Resistance



- Chip type with load life of 2000 to 5000 hours at 125°C.
- Suited for automobile electronics where heavy duty services are indispensable.
- Compliant to the RoHS directive (2011/65/EU).
- AEC-Q200 compliant. Please contact us for details.

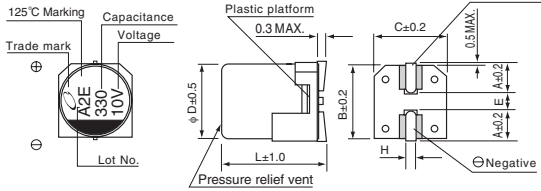


Specifications

| Item | Performance Characteristics | | | | | | | | | | | | |
|-------------------------------|---|--------------|------|------|------|------|--|--------------------|--|-------|---|-----------------|---|
| Category Temperature Range | -55 to +125°C (φ12.5 to 18) -40 to +125°C (φ8, φ10) | | | | | | | | | | | | |
| Rated Voltage Range | 10 to 50V | | | | | | | | | | | | |
| Rated Capacitance Range | 33 to 4700μF | | | | | | | | | | | | |
| Capacitance Tolerance | ±20% at 120Hz, 20°C | | | | | | | | | | | | |
| Leakage Current | After 1 minute's application of rated voltage at 20°C, leakage current is not more than 0.03CV or 4 (μA), whichever is greater. | | | | | | | | | | | | |
| Tangent of loss angle (tan δ) | For capacitance of more than 1000μF, add 0.02 for every increase of 1000μF. | | | | | | | | | | | | |
| | Rated voltage (V) | 10 | 16 | 25 | 35 | 50 | 120Hz | | | | | | |
| | tan δ (MAX) | φ8, φ10 | 0.26 | 0.20 | 0.16 | 0.14 | 0.14 | 20°C | | | | | |
| Stability at Low Temperature | Rated voltage (V) | 10 | 16 | 25 | 35 | 50 | 120Hz | | | | | | |
| | Impedance ratio Z _{-40°C} / Z _{+20°C} (MAX) | φ8, φ10 | 10 | 8 | 6 | 4 | 4 | | | | | | |
| | | φ12.5 to φ18 | 8 | 6 | 4 | 3 | 3 | | | | | | |
| Endurance | The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 5000 hours (2000 hours for φD=8 and 10) at 125°C. | | | | | | <table border="1"> <tr> <td>Capacitance change</td> <td>Within ±30% of the initial capacitance value</td> </tr> <tr> <td>tan δ</td> <td>300% or less than the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>Less than or equal to the initial specified value</td> </tr> </table> | Capacitance change | Within ±30% of the initial capacitance value | tan δ | 300% or less than the initial specified value | Leakage current | Less than or equal to the initial specified value |
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| tan δ | 300% or less than the initial specified value | | | | | | | | | | | | |
| Leakage current | Less than or equal to the initial specified value | | | | | | | | | | | | |
| Shelf Life | After storing the capacitors under no load at 125°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the specified values for the endurance characteristics listed above. | | | | | | | | | | | | |
| Marking | Black print on the case top. | | | | | | | | | | | | |

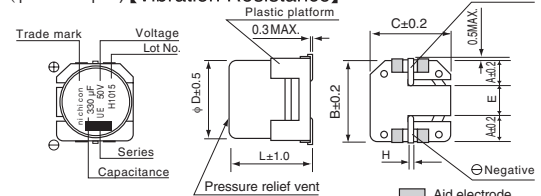
Chip Type

(φ8, φ10) [Vibration Resistance]



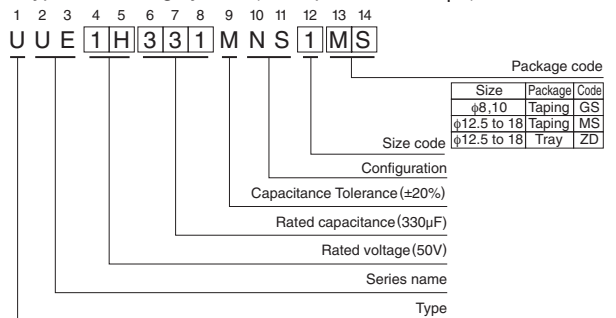
※ φ8 to φ10 The standard structure product is also available upon request, please refer to page147(UUB).

(φ12.5 to φ18) [Vibration Resistance]



※ φ12.5 to φ18 The standard structure product is also available upon request, please ask for details.

Type numbering system (Example : 50V 330μF)



| φD | 8 | 10 | 12.5 | 16 | 18 |
|----|------------|------------|------------|------------|------------|
| A | 2.9 | 3.2 | 4.8 | 5.4 | 6.4 |
| B | 8.3 | 10.3 | 13.6 | 17.1 | 19.1 |
| C | 8.3 | 10.3 | 13.6 | 17.1 | 19.1 |
| E | 3.1 | 4.5 | 4.0 | 6.3 | 6.3 |
| L | 10 | 10 | 13.5, 16 | 16.5, 21.5 | 16.5, 21.5 |
| H | 1.1 to 1.5 | 1.1 to 1.5 | 1.0 to 1.4 | 1.0 to 1.4 | 1.0 to 1.4 |

Dimensions

| Cap. (μF) | V | 10 | | 16 | | 25 | | 35 | | 50 | |
|-----------|-----|-------------|------|-------------|------|-------------|------|-------------|------|-----------------------|--------------|
| | | Code | 1A | 1C | 1E | 1V | 1H | | | | |
| 33 | 330 | | | | | | | | | | |
| 47 | 470 | | | | | | | | | | |
| 100 | 101 | | | 8 × 10 | 140 | 8 × 10 | 140 | 8 × 10 | 100 | 8 × 10 | 90 |
| 220 | 221 | 8 × 10 | 140 | 10 × 10 | 190 | 10 × 10 | 190 | 12.5 × 13.5 | 550 | 10 × 10 | 130 |
| 330 | 331 | 10 × 10 | 190 | 12.5 × 13.5 | 750 | 12.5 × 13.5 | 750 | 16 × 16.5 | 1000 | 16 × 16.5 | 850 |
| 470 | 471 | 12.5 × 13.5 | 750 | 12.5 × 13.5 | 750 | 16 × 16.5 | 1000 | 16 × 16.5 | 1000 | 18 × 16.5 | 950 |
| 680 | 681 | 12.5 × 16 | 900 | 16 × 16.5 | 1000 | 18 × 16.5 | 1200 | 18 × 16.5 | 1200 | | |
| 1000 | 102 | 12.5 × 16 | 900 | 18 × 16.5 | 1200 | 18 × 21.5 | 1550 | 18 × 21.5 | 1400 | | |
| 2200 | 222 | 18 × 16.5 | 1200 | 18 × 16.5 | 1200 | | | | | | |
| 3300 | 332 | 16 × 21.5 | 1200 | | | | | | | | |
| 4700 | 472 | 18 × 16.5 | 1200 | | | | | | | | |
| | | 18 × 21.5 | 1550 | | | | | | | Case size φD × L (mm) | Rated ripple |

※ In this case, [6] will be put at 12th digit of type numbering system, "▲"

Rated ripple current (mA rms) at 125°C 100kHz

Frequency coefficient of rated ripple current

| φD | Cap. (μF) | 50 Hz | 120 Hz | 300 Hz | 1 kHz | 10kHz or more |
|--------------|--------------|-------|--------|--------|-------|---------------|
| φ8, φ10 | 33 to 330 | 0.47 | 0.67 | 0.78 | 0.91 | 1.00 |
| | 100 to 680 | 0.53 | 0.67 | 0.82 | 0.89 | 1.00 |
| φ12.5 to φ18 | 1000 to 4700 | 0.74 | 0.87 | 0.96 | 0.98 | 1.00 |

- Taping specifications are given in page 23.
- Recommended land size, soldering by reflow are given in page 18, 19.
- Please refer to page 3 for the minimum order quantity.